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PTO/SB/21 (08-00)
Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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TRANSMITTAL FORM <i>(to be used for all correspondence after initial filing)</i>	Application Number	10/010,671
	Filing Date	11/30/01
	First Named Inventor	Richard J. Procyk
	Group Art Unit	2653
	Examiner Name	Psitos, A. M.
Total Number of Pages in This Submission	Attorney Docket Number	K35A1004

ENCLOSURES (check all that apply)		
<input checked="" type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment / Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Assignment Papers (for an Application) <input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input checked="" type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): Postcard
Remarks		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Firm or Individual name	Howard H. Sheerin, Registration No. 37,938
Signature	
Date	01/12/05

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PTO/SB/17 (01-03)

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FEE TRANSMITTAL for FY 2003

Effective 01/01/2003. Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$) 500

Complete if Known

Application Number	10/010,671
Filing Date	11/30/01
First Named Inventor	Richard J. Procyk
Examiner Name	Psitos, A. M.
Art Unit	2653
Attorney Docket No.	K35A1004

METHOD OF PAYMENT (check all that apply)☐ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None☒ Deposit Account:Deposit Account Number
Deposit Account Name

23-1209

WESTERN DIGITAL

The Commissioner is authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☒ Credit any overpayments☒ Charge any additional fee(s) during the pendency of this application☐ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.**FEE CALCULATION****1. BASIC FILING FEE**

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1001	750	2001	375	Utility filing fee	
1002	330	2002	165	Design filing fee	
1003	520	2003	260	Plant filing fee	
1004	750	2004	375	Reissue filing fee	
1005	160	2005	80	Provisional filing fee	
SUBTOTAL (1) (\$)					

2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

Total Claims		-20** =		X	18.00	=	
Independent Claims		-3** =		X	84.00	=	
Multiple Dependent						=	

Large Entity		Small Entity		Fee Description
Fee Code	Fee (\$)	Fee Code	Fee (\$)	
1202	18	2202	9	Claims in excess of 20
1201	84	2201	42	Independent claims in excess of 3
1203	280	2203	140	Multiple dependent claim, if not paid
1204	84	2204	42	** Reissue independent claims over original patent
1205	18	2205	9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) (\$)

**or number previously paid, if greater; For Reissues, see above

FEE CALCULATION (continued)**3. ADDITIONAL FEES**

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet	
1053	130	1053	130	Non-English specification	
1812	2,520	1812	2,520	For filing a request for <i>ex parte</i> reexamination	
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	110	2251	55	Extension for reply within first month	
1252	410	2252	205	Extension for reply within second month	
1253	930	2253	465	Extension for reply within third month	
1254	1,450	2254	725	Extension for reply within fourth month	
1255	1,970	2255	985	Extension for reply within fifth month	
1401	320	2401	160	Notice of Appeal	
1402	320	2402	160	Filing a brief in support of an appeal	500
1403	280	2403	140	Request for oral hearing	
1451	1,510	1451	1,510	Petition to institute a public use proceeding	
1452	110	2452	55	Petition to revive - unavoidable	
1453	1,300	2453	650	Petition to revive - unintentional	
1501	1,300	2501	650	Utility issue fee (or reissue)	
1502	470	2502	235	Design issue fee	
1503	630	2503	315	Plant issue fee	
1460	130	1460	130	Petitions to the Commissioner	
1807	50	1807	50	Processing fee under 37 CFR 1.17(q)	
1806	180	1806	180	Submission of Information Disclosure Stmt	
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	
1809	750	2809	375	Filing a submission after final rejection (37 CFR 1.129(a))	
1810	750	2810	375	For each additional invention to be examined (37 CFR 1.129(b))	
1801	750	2801	375	Request for Continued Examination (RCE)	
1802	900	1802	900	Request for expedited examination of a design application	

Other fee (specify) _____

*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$) 500

SUBMITTED BY

(Complete if applicable)

Name (Print/Type)	Howard H. Sheerin	Registration No. (Attorney/Agent)	37,938	Telephone	303-765-1689
Signature		Date	01/12/05		

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Western Digital Technologies, Inc.
Serial Number: 10/010,671

1

Patent
Docket: K35A1004

In re Application of:
Richard J. Procyk
Serial No.: 10/010,671
Filed: 11/30/01
Title: DISK DRIVE COMPRISING AN
ASYNCHRONOUS PARTITION LOCATED
ON A DISK BETWEEN TWO
ISOCHRONOUS PARTITIONS

Group Art Unit: 2653
Examiner: Psitos, A. M..

BRIEF ON APPEAL

THE COMMISSIONER FOR PATENTS
ALEXANDRIA, VA 22313

Sir,

The following appeal brief is submitted pursuant to a Notice of Appeal filed 01/12/05 for the above-identified application.

REAL PARTY IN INTEREST

The real party in interest for the above-identified patent application is Western Digital Technologies, Inc. (see assignment REEL/FRAME: 012377/0126 identifying Western Digital Technologies, Inc. as assignee of the entire right, title and interest of the above-identified patent application).

RELATED APPEALS AND INTERFERENCES

There are no known appeals or interferences related to the instant appeal.

01/19/2005 EABUBAK1 00000016 231209 10010671

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STATUS OF CLAIMS

Claims 1-12 are the only claims pending and stand under final rejection. Claims 1-12 are the basis of this appeal.

STATUS OF AMENDMENTS

There are no outstanding amendments.

SUMMARY OF INVENTION

FIG. 2 shows a disk drive according to an embodiment of the present invention 2 comprising a disk 4 having an asynchronous partition 6 and a first and second isochronous partition 8A and 8B, wherein the asynchronous partition 6 is located between the first and second isochronous partitions 8A and 8B in order to reduce the seek time for the disk drive 2 when seeking between the asynchronous 6 and isochronous partitions 8A or 8B. The disk drive 2 further comprises a head 10 actuated radially over the disk 2, and a disk controller 12. The disk controller 12 is for writing data to and reading data from the first and second isochronous partitions 8A and 8B according to a time-constrained protocol, and is for writing data to and reading data from the asynchronous 6 partition according to a best-effort protocol.

ISSUES

- I. Whether claims 1-12 are patentable under 35 USC §102(e) over Smyers (6,721,859).
- II. Whether claims 1-12 are patentable under 35 USC §103(a) over Smyers in view of Ando et al (6,341,196).

GROUPING OF CLAIMS

Claims 1-12 stand rejected and are grouped together for the purpose of this appeal.

THE REFERENCES

The following references are relied upon by the examiner:

Smyers	6,721,859	April 13, 2004
Ando et al.	6,341,196	May 14, 1999

THE REJECTIONS

Claims 1-12 stand rejected under 35 USC §102(e) as anticipated by Smyers. The examiner asserts Smyers discloses a disk drive with a disk comprising an asynchronous partition between two isochronous partitions.

Claims 1-12 stand rejected under 35 USC §103(a) as unpatentable over Smyers in view of Ando. The examiner asserts that Ando discloses an asynchronous partition between two isochronous partitions.

ARGUMENT

I. THE ISSUE UNDER 35 U.S.C. §102(e) – SMYERS

- A. The rejection should be reversed because Smyers does not disclose a disk drive with a disk comprising an asynchronous partition between two isochronous partitions.

The rejection should be reversed because the examiner has incorrectly construed Smyers as disclosing a disk drive with a disk comprising an asynchronous partition between two isochronous partitions. Although Smyers discloses to segment a disk into at least one asynchronous partition and at least one isochronous partition, nowhere does Smyers disclose to have an asynchronous partition between two isochronous partitions. In the absence of an explicit teaching, Smyers should be construed as disclosing nothing more than what has already been disclosed in the prior art as depicted in FIG. 1 of applicant's specification which shows a separate isochronous partition and a separate asynchronous partition.

In the final office action, the examiner relies on the discussion of Smyers starting at col. 6 line 15 plus, especially lines 20-30 wherein Smyers teaches to record isochronous data in an asynchronous partition. However, this teaching by Smyers does not anticipate the claims. That Smyers teaches to record isochronous data in an asynchronous partition merely means that isochronous data (such as video data) is stored in an asynchronous partition using an asynchronous protocol (the SBP-2 protocol at col. 6, line 25). Storing isochronous data (such as video data) in an asynchronous partition does not result in an isochronous partition where the isochronous data is recorded. An isochronous partition, as defined in the claims, is a partition that is accessed using an isochronous protocol (a time-constrained protocol). In Smyers, the isochronous data stored in the asynchronous partition is not accessed using an isochronous protocol rather it is accessed using an asynchronous protocol (the SBP-2 protocol) which means the entire partition is still asynchronous even though isochronous data (such as video data) is recorded therein.

Unless the examiner can point to a specific figure or excerpt from Smyers disclosing an asynchronous partition between two isochronous partitions, the rejection under 35 USC §102 should be reversed.

II. THE ISSUE UNDER 35 U.S.C. §103(a) – SMYERS IN VIEW OF ANDO

- A. The rejection should be reversed because Ando does not disclose an asynchronous partition for storing multiple files between two isochronous partitions.

Regarding the format disclosed by Ando in FIG. 18C, the claims recite an “asynchronous partition” and “first and second isochronous partitions”. It is well known in the disk drive industry the term “partition” refers to a particular section of a disk for storing multiple files. Ando discloses a single partition (FIG. 3A) for storing multiple asynchronous and isochronous data files in an “intermingled” fashion (see FIG. 3C and col. 7, lines 62+). Thus, the single partition format disclosed by Ando does not render obvious the multiple partition format recited in the claims. To emphasize this distinction, the claims recite that each partition comprises multiple contiguous tracks, and that each partition stores multiple data files. In the final office action, the examiner ignored this limitation and instead equated a partition with a file. This is an inappropriate interpretation of the claims which recite that each partition comprises multiple files. Since Ando discloses a single partition comprising multiple files, the rejection should be reversed.

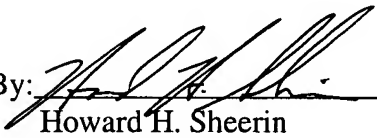
Regarding claims 3 and 9, the examiner asserts that the use of offset parameters to identify the location of partitions is well known. The applicant concedes that prior art disk drives have employed offset parameters to identify the boundaries of partitions (as opposed to identifying individual files as disclosed by Ando). However, the prior art does not disclose or suggest to use offset parameters that identify the boundary of an asynchronous partition that is between two isochronous partitions.

CONCLUSION

Reversal of the rejections in this appeal is respectfully requested.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 23-1209, and please credit any excess fees to such deposit account.

Respectfully submitted,

Date: 01/12/05 By: 

Howard H. Sheerin
Reg. No. 37,938
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CERTIFICATE OF MAILING

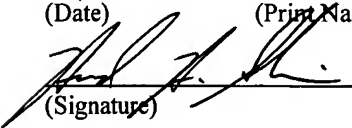
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01/12/05

(Date)

Howard H. Sheerin

(Print Name)


(Signature)

APPENDIX

A complete listing of the claims on appeal:

- 1 1. A disk drive comprising:
 - 2 (a) a disk comprising a plurality of tracks, an asynchronous partition, and a first and
3 second isochronous partition, wherein:
4 the asynchronous partition comprises a first plurality of contiguous tracks for storing
5 a plurality of files comprising asynchronous data;
6 the first isochronous partition comprises a second plurality of contiguous tracks for
7 storing a plurality of files comprising isochronous data;
8 the second isochronous partition comprises a third plurality of contiguous tracks for
9 storing a plurality of files comprising isochronous data; and
10 the asynchronous partition is located between the first and second isochronous
11 partitions in order to reduce the seek time for the disk drive when seeking
12 between the asynchronous and isochronous partitions;
 - 13 (b) a head actuated radially over the disk; and
 - 14 (c) a disk controller for writing the isochronous data to and reading the isochronous data
15 from the first and second isochronous partitions according to a time-constrained
16 protocol, and for writing the asynchronous data to and reading the asynchronous data
17 from the asynchronous partition according to a best-effort protocol.
- 1 2. The disk drive as recited in claim 1, wherein the time-constrained protocol employs the
2 AV/C protocol, and the best-effort protocol employs the SBP-2 protocol.

3. The disk drive as recited in claim 1, further comprising offset parameters for identifying the beginning and end of the asynchronous partition.

4. The disk drive as recited in claim 3, wherein the offset parameters comprise a first parameter identifying the beginning of the asynchronous partition and a second parameter identifying the end of the asynchronous partition.

5. The disk drive as recited in claim 3, wherein the offset parameters comprise a first parameter identifying the beginning of the asynchronous partition and a second parameter identifying the size of the asynchronous partition.

6. The disk drive as recited in claim 1, wherein the disk comprises an AV file system for accessing the isochronous data.

7. A method of accessing a disk drive, the disk drive comprising a disk and a head actuated radially over the disk, the disk comprising a plurality of tracks, an asynchronous partition comprising a first plurality of contiguous tracks for storing a plurality of files comprising asynchronous data, a first isochronous partition comprising a second plurality of contiguous tracks for storing a plurality of files comprising isochronous data, and a second isochronous partition comprising a third plurality of contiguous tracks for storing a plurality of files comprising isochronous data, the method comprising the steps of:

(a) using a time-constrained protocol to read the isochronous data from at least one of the first and second isochronous partitions; and

(b) using a best-effort protocol to read the asynchronous data from the asynchronous partition;

12 wherein the asynchronous partition is located on the disk between the first and second
13 isochronous partitions in order to reduce the seek time for the disk drive when seeking
14 between the asynchronous and isochronous partitions.

1 8. The method of accessing a disk drive as recited in claim 7, wherein the time-constrained
2 protocol employs the AV/C protocol, and the best-effort protocol employs the SBP-2
3 protocol.

1 9. The method of accessing a disk drive as recited in claim 7, wherein the step of reading
2 the isochronous data utilizes offset parameters for identifying the beginning and end of
3 the asynchronous partition.

1 10. The method of accessing a disk drive as recited in claim 9, wherein the offset parameters
2 comprise a first parameter identifying the beginning of the asynchronous partition and a
3 second parameter identifying the end of the asynchronous partition.

1 11. The method of accessing a disk drive as recited in claim 9, wherein the offset parameters
2 comprise a first parameter identifying the beginning of the asynchronous partition and a
3 second parameter identifying the size of the asynchronous partition.

1 12. The method of accessing a disk drive as recited in claim 7, wherein the step of reading
2 the isochronous data utilizes an AV file system stored on the disk.

1